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SNELL & WILMER LLP
1920 MAIN STREET
SUITE 1200
IRVINE, CA 92614-7230

EXAMINER

SHEPARD, JUSTIN E

ART UNIT	PAPER NUMBER
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2617

DATE MAILED: 07/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/901,258	FUJITA ET AL.	
	Examiner	Art Unit	
	Justin E. Shepard	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-11, 14-26 and 28-39 is/are rejected.
- 7) ☒ Claim(s) 7, 12, 13 and 27 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10/18/01</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: On page 52, line 21, the word "refereed" should be replaced with "referred."

Appropriate correction is required.

Claim Objections

2. Claim 17 is objected to because of the following informalities: On page 96, line 30; the word "fist" should be replaced with "first." Appropriate correction is required.

Claim 18 is objected to because of the following informalities: On page 96, line 6; the word "broader" should be replaced with "narrower." Appropriate correction is required.

Claim 22 is objected to because of the following informalities: In part (c), "preceding to the first time period" and "immediately preceding period" are both use when only one would be needed. Appropriate correction is required.

Claim 27 is objected to because of the following informalities: Part (d) does not list the bandwidth allotted to the first program, so it's limits read the same as part (c). Appropriate correction is required.

Claim 37 is objected to because of the following informalities: The word "fist" should be replaced with "first." Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-6, 14-16, 28, 32, and 36 are rejected under 35 U.S.C. 102(e) as being anticipated by Eldering, U.S. Patent Number 6,615,039.

Referring to claim 1, Eldering discloses a broadcasting apparatus (column 2, lines 35-38; figure 2, parts 211 and 209) that broadcasts a specific program to which a reproduction time period between a starting time and a finishing time is specified (figure 7, box labeled "PROGRAMMING"; figure 9; Note: the time for inserting the advertisement listed in the "Insert Time" column indicates that the program from figure 7 must have a planned start and stop time), the reproduction being performed by a receiving apparatus (figure 2, part 209), the broadcasting apparatus comprising: allotment means for allotting a broadcasting bandwidth for the reproduction time period to the specific program (column 9, line 67, column 10, lines 1-3) and allotting a part of the broadcasting bandwidth for a preceding time period immediately before the reproduction time period to the specific program and the other part of the broadcasting

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bandwidth to other program (column 10, lines 2-3, 8-10; figure 7, part AD1 and signals running from part 802 to 806); and transmission means, in accordance with the result of allotment by the allotment means, for (a) repeatedly transmitting program data of the other program while transmitting program data of the specific program in the preceding time period (column 10, lines 37-41; Note: sending the data whenever there is spare bandwidth is being interpreted as being equivalent to repeatedly sending data), and (b) repeatedly transmitting the program data of the specific program in the reproduction time period (column 10, lines 37-41).

5. Referring to claim 2, Elderling1 discloses a broadcasting apparatus of Claim 1, wherein the allotment means sets a starting time of the preceding time period as a first time and a time included between the first time and the starting time of the reproduction time period as a second time (figure 7, box in lower right hand corner), and the allotment means (a) allots a broadcasting bandwidth not broader than a predetermined broadcasting bandwidth to the specific program from the first time to the second time (column 7, lines 29-34; Note: the advertisements can be received shortly in advance), and (b) allots a broadcasting bandwidth broader than the predetermined broadcasting to the specific program from the second time to the finishing time of the reproduction time period (column 10, lines 37-41; Note: the bandwidth for the advertisement being dependent on the bandwidth of the main program coupled with the advertisements being downloaded shortly ahead of the time they are to be inserted is being interpreted as equivalent to the advertisements being downloaded at a low bandwidth until the

insertion time, and the bandwidth to the main program isn't needed and the majority of the bandwidth is left for the advertisement).

6. Referring to claim 3, Eldering discloses a broadcasting apparatus of Claim 2, wherein the transmission means transmits the program data having a second ID (column 11, lines 17-21) of the specific program for the preceding time period, and repeatedly transmits control data as well as the program data for the reproduction time period (column 10, lines 37-45), and the control data has a first ID (column 11, lines 44-45) and includes instructions for the receiving apparatus, when the receiving apparatus receives the program data having the second ID (column 11, line 47), to cache and reproduce the program data (column 11, lines 20-21), wherein a program data having the first ID must be taken in by the receiving apparatus, and the second ID is different from the first ID (column 11, lines 44-47).

7. Referring to claim 4, Eldering discloses a broadcasting apparatus of claim 2, wherein the program data for the specific program is classified into (a) a first type program data (figure 7, "PROGRAMMING") and (b) a second type program data which is different from the first type program data at least in part (figure 7, "AD1"), and the transmission means transmits the first type program data for a duration from the first time to the starting time of the reproduction time period, and transmits the second type program data for a duration from the second time to the finishing time of the reproduction time period (figure 7, "PRESENTATION STREAM").

8. Referring to claim 5, Eldering discloses a broadcasting apparatus of claim 2, further comprising: means for transmitting a cache instruction message before the

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starting time of the reproduction time period of the specific program (column 7, lines 31-34; Note: the device would have to send the cache signal before the reproduction time for the caching to be effective), wherein cache instruction message instructs the to cache the received program data of the receiving apparatus specific program (column 6, lines 40-44; Note: as the receiver can select which advertisements to cache, there must be a control signal to tell it which advertisements to cache).

9. Referring to claim 6, Eldering discloses a broadcasting apparatus of claim 2, wherein the program data of the other programs which is repeatedly transmitted by the transmission means in the preceding time period includes an instruction for the receiving apparatus, when the receiving apparatus receives the program data of the specific program, to cache the program data (column 10, lines 37-45; Note the map data is being interpreted, along with the note in the above claim, to include caching instructions).

10. Referring to claim 14, Eldering discloses a broadcasting apparatus of claim 2, wherein the time period between the second time and the starting time of the reproduction time period and the allocated broadcasting bandwidth for transmitting the program data of the specific program from the second time to the starting time of the reproduction time period are necessary for transmitting data whose data size is larger than the data size of the program data of the specific program (figure 7; Note: the total transmission bandwidth being transmitted by part 802 is larger than the program stream).

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11. Referring to claim 15, Eldering discloses a broadcasting apparatus of claim 2, wherein the allotment means allots a narrower bandwidth for transmitting the program data for the specific program from the second time to the starting time of the reproduction time period of the specific program than a bandwidth for transmitting the program data from the starting time to the finishing time of the reproduction time period (column 7, lines 29-34; Note: the advertisement being broadcast shortly in advance is being interpreted as broadcasting a portion prior to the reproduction time and then increasing the bandwidth during the reproduction time).

12. Referring to claim 16, Eldering discloses a broadcasting apparatus of claim 2, wherein the allotment means allots a fixed broadcasting bandwidth to the specific program from the first time to the second time (column 9, lines 65-67).

Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eldering in view of Suzuki.

13. Claim 28 is rejected under 35 U.S.C. 102(e) as being anticipated by Eldering.

Eldering discloses a broadcasting method for broadcasting a specific program to which a reproduction time period between a starting time and a finishing time is specified (figure 7, figure 9), the reproduction being performed by a receiving apparatus (figure 2, part 209), the broadcasting method comprising the steps of: an allotment step for allotting a broadcasting bandwidth for the reproduction time period to the specific program (figure 7) and allotting a part of the broadcasting bandwidth for a preceding time period immediately before the reproduction time period to the specific program and the other part of the broadcasting bandwidth to other program (column 7, lines 29-37);

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and a transmission step, in accordance with the result of allotment in the allotment step, for (a) repeatedly transmitting program data of the other program while transmitting program data of the specific program in the preceding time period (column 10, lines 37-45), and (b) repeatedly transmitting the program data of the specific program in the reproduction time period (column 10, lines 37-45).

14. Claim 32 is rejected under 35 U.S.C. 102(e) as being anticipated by Eldering.

Eldering discloses a program recording medium which is readable for a computer in a broadcasting apparatus (column 4, lines 30-33; Note: use on the internet is being interpreted as being used on a computer, which would run a program), the broadcasting apparatus broadcasts a specific program to which a reproduction time period between a starting time and finishing time is specified (figure 7, figure 9), the reproduction being performed by a receiving apparatus the computer program embodied on the program recording medium has the computer conduct the steps of: an allotment step for allotting a broadcasting bandwidth for the reproduction time period to the specific program (figure 7, figure 9) and allotting a part of the broadcasting bandwidth for a preceding time period immediately before the reproduction time period to the specific program and the other part of the broadcasting bandwidth to other program (column 7, lines 29-37); and a transmission step, in accordance with the result of allotment in the allotment step, for (a) repeatedly transmitting program data of the other program while transmitting program data of the specific program in the preceding time period, and (b) repeatedly transmitting the program data of the specific program in the reproduction time period (column 10, lines 37-45).

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15. Claim 36 is rejected under 35 U.S.C. 102(e) as being anticipated by Eldering.

Eldering discloses a program that is readable for a computer in a broadcasting apparatus (column 4, lines 30-33), the broadcasting apparatus broadcasts a specific program to which a reproduction time period between a starting time and finishing time is specified (figure 7), the reproduction being performed by a receiving apparatus (figure 2, part 201), the program has the computer conduct the steps of: an allotment step for allotting a broadcasting bandwidth for the reproduction time period to the specific program (figure 7) and allotting a part of the broadcasting bandwidth for a preceding time period immediately before the reproduction time period to the specific program and the other part of the broadcasting bandwidth to other program (column 7, lines 29-37); and a transmission step, in accordance with the result of allotment in the allotment step, for (a) repeatedly transmitting program data of the other program while transmitting program data of the specific program in the preceding time period, and (b) repeatedly transmitting the program data of the specific program in the reproduction time period (column 10, lines 37-45).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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16. Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eldering in view of Suzuki.

Referring to claim 8, Eldering does not disclose a broadcasting apparatus of claim 2, further comprising: means for transmitting a reproduction instruction message at the starting time of the reproduction time period of the specific program, wherein the reproduction instruction message instructs the receiving apparatus to reproduce the recorded program data of the specific program immediately after receiving the message.

Suzuki discloses a broadcasting apparatus of claim 2, further comprising: means for transmitting a reproduction instruction message at the starting time of the reproduction time period of the specific program, wherein the reproduction instruction message instructs the receiving apparatus to reproduce the recorded program data of the specific program immediately after receiving the message (column 23, lines 22-25).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the reproduction signal from Suzuki in the apparatus disclosed by Eldering. The motivation for doing this would have been to enable the cable network to control which programs were authorized to play on which subscriber's systems.

17. Referring to claim 9, Eldering does not disclose a broadcasting apparatus of claim 2, further comprising: means transmitting a reproduction instruction message before the starting time of the reproduction time period of the specific program, wherein the reproduction instruction message instructs the receiving apparatus to reproduce the

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recorded program data of the specific program at the starting time of reproduction time period of the specific program.

Suzuki discloses a broadcasting apparatus of claim 2, further comprising: means transmitting a reproduction instruction message before the starting time of the reproduction time period of the specific program, wherein the reproduction instruction message instructs the receiving apparatus to reproduce the recorded program data of the specific program at the starting time of reproduction time period of the specific program (column 23, lines 22-25; column 24, line 55).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the reproduction signal from Suzuki in the apparatus disclosed by Eldering. The motivation for doing this would have been to enable the cable network to control which programs were authorized to play on which subscriber's systems.

18. Referring to claim 10, Eldering does not disclose a broadcasting apparatus of claim 2, further comprising: means for transmitting a deletion instruction message at the finishing time of the reproduction time period of the specific program, wherein the deletion instruction message instructs the receiving apparatus to delete the recorded program data of the specific program immediately after receiving the message.

Suzuki discloses a broadcasting apparatus of claim 2, further comprising: means for transmitting a deletion instruction message at the finishing time of the reproduction time period of the specific program, wherein the deletion instruction message instructs the receiving apparatus to delete the recorded program data of the specific program immediately after receiving the message (column 24, lines 10-13).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the deletion signal from Suzuki in the apparatus disclosed by Eldering. The motivation for doing this would have been to enable the cable network to delete programs off of subscribers systems so they would not have access to copyrighted material.

19. Referring to claim 11, Eldering does not disclose a broadcasting apparatus of claim 2 further comprising: means for transmitting a deletion instruction message before the finishing time of the reproduction time period of the specific program, wherein the deletion instruction message instructs the receiving apparatus to delete the recorded program data of the specific program at the finishing time of the reproduction time period of the specific program.

Suzuki discloses a broadcasting apparatus of claim 2 further comprising: means for transmitting a deletion instruction message before the finishing time of the reproduction time period of the specific program, wherein the deletion instruction message instructs the receiving apparatus to delete the recorded program data of the specific program at the finishing time of the reproduction time period of the specific program (column 25, lines 22-23; Note: automatically deleting an item after being played is being interpreted as being equivalent to a deletion occurring after a scheduling instruction is sent by the cable network).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the deletion signal from Suzuki in the apparatus disclosed by Eldering. The motivation for doing this would have been to enable the cable network to

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delete programs off of subscribers systems so they would not have access to copyrighted material.

Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eldering in view of Suzuki.

20. Referring to claim 17, Eldering discloses a broadcasting apparatus that transmits a data broadcasting program and a first and a second specific programs which are interposed in the data broadcasting program (figure 7), the broadcasting apparatus comprising: allotment means for (a) allotting a broadcasting bandwidth for a first time period and a second time period to the first specific program and the second specific program, the first time period and the second time period are a starting time and broadcasting program (figure 5, bottom right hand corner), and (b) allotting a part of the broadcasting bandwidth to the first and the second specific programs and the other part of the broadcasting bandwidth to the data broadcasting program for included in a total time period between a finishing time for broadcasting the data all of time periods other than the first and the second time periods in the total time period (column 7, lines 29-37); and transmission means for repeatedly transmitting the program data of each of the data broadcasting program, the first specific program, and the second specific program in accordance with the result of allotment by the allotment means (column 10, lines 37-45; Note: sending data whenever the channel is idle is interpreted as repeatedly sending the data); and generating a first instruction that program data for storage instruction and a second storage instruct the receiving apparatus to store a the first specific program and a program data for the second specific program in a storing unit in

the receiving apparatus (column 6, lines 40-44; Note: different advertisements being delivered to different television sets in the same household is being interpreted as being equivalent to a storage control signal, as something must control which advertisements get downloaded to which set top box); and control means for controlling the transmission means so as to transmit (a) a plurality of the first storage instructions before the first time period; (c) a plurality of the second storage instructions before the second time period (column 7, lines 29-37).

Eldering does not disclose a broadcasting apparatus where the instruction generation means for generating a first reproduction instruction and a second reproduction instruction that instruct a receiving apparatus to reproduce the program data for the first specific program and the program data for the second specific program, respectively, in case that the program data for the first specific program and the program data for the second specific program have been stored in the storing unit; and control means for controlling the transmission means so as to transmit, (b) the first reproduction instruction at the starting time of the first time period, and (d) the second reproduction instruction at the starting time of the second time period.

Suzuki discloses a broadcasting apparatus where the instruction generation means for generating a first reproduction instruction and a second reproduction instruction that instruct a receiving apparatus to reproduce the program data for the first specific program and the program data for the second specific program, respectively, in case that the program data for the first specific program and the program data for the second specific program have been stored in the storing unit; and control means for

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controlling the transmission means so as to transmit, (b) the first reproduction instruction at the starting time of the first time period, and (d) the second reproduction instruction at the starting time of the second time period (column 23, lines 22-25; Note: if you are caching multiple programs as disclosed in Eldering, it would be obvious that you would need multiple copies of the signals disclosed in Suzuki).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the reproduction controls from Suzuki in the broadcasting apparatus disclosed in Eldering. The motivation for doing this would have been to enable the cable network to control which programs were authorized to play on which subscriber's systems.

21. Referring to claim 18, Eldering discloses a broadcasting apparatus of claim 17, wherein the allotment means allots (a) a broadcasting bandwidth not narrower than predetermined broadcasting bandwidth to the program data of the first specific program for the first time period (figure 7, bottom right corner), (b) a broadcasting bandwidth not narrower than the predetermined broadcasting bandwidth to the program data of the second specific program for the second time period (figure 7, bottom right corner), (c) a broadcasting bandwidth narrower than the predetermined broadcasting bandwidth to the program data of the first specific program for a time period other than the first time period in the total time period (column 7, lines 29-37), and (d) a broadcasting bandwidth narrower than the predetermined broadcasting bandwidth to the program data of the second specific program for a time period other than the second time period in the total time period (column 7, lines 29-37).

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22. Referring to claim 19, Eldering discloses a broadcasting apparatus of Claim wherein the allotment means allots (a) a broadcasting bandwidth not narrower than a predetermined broadcasting bandwidth to the program data of the first specific program for the first time period and a time period immediately before the first time period (figure 7, bottom right hand side labeled programming), (b) a broadcasting bandwidth not narrower than the predetermined broadcasting bandwidth to the program data of the second specific program for the second time period and a time period immediately before the second time period (figure 7, bottom right hand side labeled AD1), (c) a broadcasting bandwidth narrower than the predetermined broadcasting bandwidth to the program data of the first specific program for a time period other than the first time period and the time period immediately before the first time period in the total time period (column 7, lines 29-37), and (d) a broadcasting bandwidth narrower than the predetermined broadcasting bandwidth to the program data of the second specific program for a time period other than the second time period and the time period immediately before the second time period in the total time period (column 7, lines 29-37).

23. Claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eldering in view of Suzuki.

Referring to claim 20, Eldering discloses a broadcasting apparatus that transmits a data broadcasting program and a first and a second specific programs which are interposed in the data broadcasting program (figure 7), the broadcasting apparatus comprising: allotment means for (a) allotting a broadcasting bandwidth period and a

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second time period to the first specific program and the second specific program (figure 7), the first time period and the second time period are included in a total time period between a starting time and a finishing time for broadcasting the data broadcasting program, and for a first time (b) allotting (1) a broadcasting bandwidth to the data broadcasting data program in the total time period except for the first time period and the second time period (column 7, lines 29-37), (2) a part of the broadcasting bandwidth to the first specific program for a time period preceding to the first time period in the total time period (column 7, lines 29-37), and (3) a part of the broadcasting bandwidth to the second specific program for a time period preceding to the second time period in the total time period (column 7, lines 29-37); instruction generation means for generating a first storage instruction and a second storage instruction that instruct a receiving apparatus to store a program data for the first specific program and a program data for the second specific program in a storing unit in the receiving apparatus (column 6, lines 40-44; Note: different advertisements going to different television sets in the same household is being interpreted as requiring a control signal to control where the advertisements are downloaded), respectively; transmission means for repeatedly transmitting the program data of each of the data broadcasting program (column 10, lines 37-45), the first specific program, and the second specific program in accordance with the result of allotment by the allotment means; and control means for controlling the transmission means so as to transmit (a) a plurality of the first storage instructions before the first time period, (b) a plurality of the second storage instructions before the second time period (Note: the storage instructions would have to be transmitted prior to

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the first period or it wouldn't be effective to store the program after the program was supposed to be reproduced).

Eldering does not disclose a broadcasting apparatus where generating a first reproduction instruction and a second reproduction instruction that instruct the receiving apparatus to reproduce the program data for the first specific program and the program data for the second specific program, respectively, in case that the program data for the first specific program and the program data for the second specific program have been stored in the storing unit; and control means for controlling the transmission means so as to transmit (c) the first reproduction instruction at the starting time of the first time period, and (d) the second reproduction instruction at the starting time the second time period.

Suzuki discloses a broadcasting apparatus where generating a first reproduction instruction and a second reproduction instruction that instruct the receiving apparatus to reproduce the program data for the first specific program and the program data for the second specific program (column 23, lines 22-25), respectively, in case that the program data for the first specific program and the program data for the second specific program have been stored in the storing unit; and control means for controlling the transmission means so as to transmit (c) the first reproduction instruction at the starting time of the first time period (column 23, lines 22-25), and (d) the second reproduction instruction at the starting time the second time period (column 23, lines 22-25; Note: the program starting directly after the signal is sent is being interpreted as equivalent to the signal being sent at the start time).

At the time of the invention it would have been obvious for a person of ordinary skill in the art to use the reproduction instructions from Suzuki in the broadcast system disclosed by Eldering. The motivation for doing this would have been to enable the cable network to control which programs were authorized to play on which subscriber's systems.

24. Referring to claim 21, Eldering discloses a broadcasting apparatus of Claim 20, wherein the allotment means allots (a) a broadcasting bandwidth not narrower than a predetermined broadcasting bandwidth to the program data of the first specific program for the first time period (figure 7), (b) a broadcasting bandwidth not narrower than the predetermined broadcasting bandwidth to the program data of the second specific program for the second time period (figure 7), (c) a broadcasting bandwidth narrower than the predetermined broadcasting bandwidth to the program data of the first specific program for a time period preceding to the first time period in the total time period (column 7, lines 29-37), and (d) a broadcasting bandwidth narrower than the predetermined broadcasting bandwidth to the program data of the second specific program for a time period preceding to the second time period in the total time period (column 7, lines 29-37).

25. Referring to claim 22, Eldering discloses a broadcasting apparatus of Claim 20, wherein the allotment means allots (a) broadcasting bandwidth not narrower than a predetermined broadcasting bandwidth to the program data of the first specific program for the first time period and a time period immediately before the first time period (figure 7), (b) a broadcasting bandwidth not narrower than the predetermined broadcasting

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bandwidth to the program data of the second specific program for the second time period and a time period immediately before the second time period (figure 7), (c) a broadcasting bandwidth narrower than the predetermined broadcasting bandwidth to the program data of the first specific program for a time period preceding to the first time period and the immediately preceding period to the first time period in the total time period (column 7, lines 29-37), and (d) a broadcasting bandwidth narrower than the predetermined broadcasting bandwidth to the program data of the second specific program for a time period preceding to the second time period and the immediately preceding period to the second time period in the total time (column 7, lines 29-37).

26. Claims 23-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eldering in view of Suzuki.

Referring to claim 23, Eldering discloses a broadcasting apparatus that transmits a program block which is composed of a data broadcasting program and a program or two or more successive programs which are interposed in the data broadcasting program (figure 7), wherein a reproduction time period between a starting time and a finishing time is specified (figure 9) to each of the data broadcasting program and programs included in the program block and the reproduction is performed by a receiving apparatus (figure 2, part 209), the broadcasting apparatus comprising: allotment means for (a) allotting a broadcasting bandwidth from a first time to the starting time of the reproduction time period of the leading program included in the specific program block to the data broadcasting program and all of the programs included in the specific program block (column 7, lines 29-37), and (b) allotting the

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broadcasting bandwidth for a reproduction time period of each program included in the specific program block to the program and the following programs included in the same program block (figure 7), wherein the first time is a time in the reproduction time period of the data broadcasting program and which satisfies a condition so as not to interpose the other program blocks between the first time and the specific program block (column 10, lines 41-45; Note: the program map is interpreted as playing each programming block at the appropriate time); instruction generation means for generating a storage instruction that instructs the receiving apparatus to store a program data of each program included in the specific program block in a storing unit in the receiving apparatus (column 6, lines 40-44), transmission means for repeatedly transmitting the program data of the data broadcasting program and each program included in the specific program block in accordance with the result of allotment by the allotment means; and control means for controlling the transmission means so as to transmit a plurality of the storage instructions for each program included in the specific program block before the starting time of the reproduction time period of the program (column 10, lines 37-45).

Eldering does not disclose an apparatus where generating a reproduction instruction that instructs the receiving apparatus to reproduce the program data, in case that the program data of each program has been stored in the storing unit; and transmit the reproduction instruction for the program at the starting time of the reproduction time period of the program.

Suzuki discloses an apparatus where generating a reproduction instruction that instructs the receiving apparatus to reproduce the program data, in case that the program data of each program has been stored in the storing unit; and transmit the reproduction instruction for the program at the starting time of the reproduction time period of the program (column 23, lines 22-25).

At the time of the invention it would have been obvious for a person of ordinary skill in the art to use the reproduction instructions from Suzuki in the broadcast system disclosed by Eldering. The motivation for doing this would have been to enable the cable network to control which programs were authorized to play on which subscriber's systems.

27. Referring to claim 24, Eldering discloses a broadcasting apparatus of claim 23 wherein the allotment means allots (a) a broadcasting bandwidth not narrower than a predetermined broadcasting bandwidth to each program included in the specific program block for a reproduction time period of each program (figure 7), and (b) a broadcasting bandwidth narrower than the predetermined broadcasting bandwidth to each program for a time period other than the reproduction time period (column 7, lines 29-37).

28. Referring to claim 25, Eldering discloses a broadcasting apparatus of claim 23, wherein the allotment means allots (a) a broadcasting bandwidth not narrower than a predetermined broadcasting bandwidth to each program included in the specific program block for a time period between a time immediately before the starting time of the reproduction time period of the program and the finishing time of the reproduction

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time period of the program (figure 7) and (b) broadcasting bandwidth narrower than the predetermined broadcasting bandwidth to the program for the other time periods (column 7, lines 29-37).

29. Referring to claim 26, Eldering discloses a broadcasting apparatus of Claim 23, wherein in case that a first program and a second program which follows the first program are included in the program block (figure 7), the allotment means determines a broadcasting bandwidth which is allocated to each of the program for a first through a third transmission time periods in the following manner (figure 7; Note: the first period is the preamble to the reproduction as mentioned in column 7, lines 29-37; the second is "PROGRAMMING;" and the third is "AD1"); wherein the first through the third transmission time periods are time periods which are divided by the first time, second time, the finishing time of the reproduction time period of the first program, and the finishing time of the reproduction time period of the second program in the stated order, wherein the second time is a time for the reproduction time period of the data broadcasting program, the allotment means allots (a) a broadcasting bandwidth first program and the second not broader than a predetermined broadcasting bandwidth to the first and the second programs for the first transmission time period (column 7, lines 29-37), a broadcasting bandwidth broader than the predetermined broadcasting bandwidth to the first program and broadcasting bandwidth not broader than the predetermined broadcasting bandwidth to the second program for the second transmission period (figure 7; Note: PROGRAMMING is being reproduced, and therefore more bandwidth is being diverted to that stream), and a broadcasting

bandwidth broader than the predetermined broadcasting bandwidth to the second program for the third transmission time period (figure 7; Note: AD1 is reproduced, and the bandwidth is increased to it).

30. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eldering in view of Suzuki.

Eldering discloses a broadcasting method for transmitting a data broadcasting program and a first specific program and a second specific program which are interposed in the data broadcasting program (figure 7), the broadcasting method comprising the steps of: an allotment step for (a) allotting a broadcasting bandwidth for a first time period and a second time period to the first specific program and the second specific program, the first time period and the second time period are included in a total time period between a starting time and a finishing time for broadcasting the data broadcasting program (figure 7), and (b) allotting a part of the broadcasting bandwidth to the first and the second specific programs and the other part of the broadcasting bandwidth to the data broadcasting program for all of time periods other than the first and the second time periods in the total time period (column 7, lines 29-37); an instruction generation step for generating a first storage instruction and a second storage instruction that instruct the receiving apparatus to store a program data for the first specific program and a program data for the second specific program in a storing unit in the receiving apparatus (column 6, lines 40-44), respectively, and a transmission step for transmitting (a) a plurality of the first storage instructions before the first time period, (c) a plurality of the second storage instructions before the second time period,

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and while repeatedly transmitting the program data of each of the data broadcasting program (column 10, lines 37-41), the first specific program and the second specific program in accordance with the result of allotment in the allotment step.

Eldering does not disclose an apparatus where generating a first reproduction instruction and a second reproduction instruction that instruct a receiving apparatus to reproduce the program data for the first specific program and the program data for the second specific program, respectively, in case that the program data for the first specific program and the program data for the second specific program have been stored in the storing unit; and a transmission step for transmitting (b) the first reproduction instruction at the starting time of the first time period, and (d) the second reproduction instruction at the starting time of the second time period.

Suzuki discloses an apparatus where generating a first reproduction instruction and a second reproduction instruction that instruct a receiving apparatus to reproduce the program data for the first specific program and the program data for the second specific program (column 23, lines 22-25), respectively, in case that the program data for the first specific program and the program data for the second specific program have been stored in the storing unit; and a transmission step for transmitting (b) the first reproduction instruction at the starting time of the first time period (column 23, lines 22-25), and (d) the second reproduction instruction at the starting time of the second time period (column 23, lines 22-25)

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the reproduction controls from Suzuki in the broadcasting

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apparatus disclosed in Eldering. The motivation for doing this would have been to enable the cable network to control which programs were authorized to play on which subscriber's systems.

31. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eldering in view of Suzuki.

Eldering discloses a broadcasting method for transmitting a data broadcasting program and a first specific program and a second specific program which are interposed in the data broadcasting program (figure 7), the broadcasting method comprising the steps of: an allotment step for (a) allotting a broadcasting bandwidth for a first time period and a second time period to the first specific program and the second specific program, the first time period and the second time period are included in a total time period between a starting time and a finishing time for broadcasting the data broadcasting program (figure 7), and (b) allotting (1) a broadcasting bandwidth to the data broadcasting data program in the total time period except for the first time period and the second time period, (2) a part of the broadcasting bandwidth to the first specific program for a time period preceding to the first time period in the total time period, and (3) a part of the broadcasting bandwidth to the second specific program for a time period preceding to the second time period in the total time period (column 7, lines 29-37); an instruction generation step for generating a first storage instruction and a second storage instruction that instruct a receiving apparatus to store a program data for the first specific program and a program data for the second specific program in a storing unit in the receiving apparatus (column 6, lines 40-44), respectively, and a

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transmission step for transmitting (a) a plurality of the first storage instructions before the first time period, (b) a plurality of the second storage instructions before the second time period, while repeatedly transmitting the program data of each of the data broadcasting program, the specific program, and the second specific program (column 10, lines 37-45; Note: the storage instructions would have to be sent before the device would be able to store the programs) in accordance with the result of allotment in the allotment step.

Eldering does not disclose an apparatus where generating a first reproduction instruction and a second reproduction instruction that instruct the receiving apparatus to reproduce the program data for the first specific program and the program data for the second specific program, respectively, in case that the program data for the first specific program and the program data for the second specific program have been stored in the storing unit; and a transmission step for transmitting (c) the first reproduction instruction at the starting time of the first time period, and (d) the second reproduction instruction at the starting time of the second time period.

Suzuki discloses an apparatus where generating a first reproduction instruction and a second reproduction instruction that instruct the receiving apparatus to reproduce the program data for the first specific program and the program data for the second specific program (column 23, lines 22-25), respectively, in case that the program data for the first specific program and the program data for the second specific program have been stored in the storing unit; and a transmission step for transmitting (c) the first reproduction instruction at the starting time of the first time period, and (d) the second

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reproduction instruction at the starting time of the second time period (Note: the device starts decoding the video as soon as it receives the signal, which is being interpreted as equivalent to transmitting a signal at the beginning of a program).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the reproduction controls from Suzuki in the broadcasting apparatus disclosed in Eldering. The motivation for doing this would have been to enable the cable network to control which programs were authorized to play on which subscriber's systems.

32. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eldering in view of Suzuki.

Eldering discloses a broadcasting method for transmitting a program block which is composed of a data broadcasting program and a program or two or more successive programs which are interposed in the data broadcasting program (figure 7), wherein a reproduction time period between a starting time and a finishing time is specified to each of the data broadcasting program and programs included in the program block (column 7, lines 65-67; Note: knowing when the advertisement will be inserted is being interpreted as equivalent to knowing when the program will be reproduced), the broadcasting method comprising the steps of: an allotment step for (a) allotting a to the starting time broadcasting bandwidth from a first time the reproduction time period of the leading program included in the specific program block to the data broadcasting program and all of the programs included in specific program block (column 7, lines 29-37), and (b) allotting the broadcasting bandwidth for a reproduction time period each

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program included in the specific program block to the program and the following programs included in the same program block (figure 7), wherein the first time is a time in the reproduction time period of the data broadcasting program and which satisfies a condition so as not to interpose the other program blocks between the first time and the specific program block (column 10, lines 41-45); an instruction generation step for generating a storage instruction that instructs the receiving apparatus to store a program data of each program included in the specific program block in a storing unit in the receiving apparatus (column 6, lines 40-44), a transmission step for transmitting a plurality of the storage instructions for each program included in the specific program block before the starting time of the reproduction time period of the program (column 10, lines 37-41), while repeatedly transmitting the program data of the data broadcasting program and each program included in the specific program block in accordance with the result of allotment in the allotment step.

Eldering does not disclose an apparatus where generating a reproduction instruction that instructs the receiving apparatus to reproduce the program data, in case that the program data of each program has been stored in the storing unit; and transmitting the reproduction instruction for the program at the starting time of the reproduction time period of the program.

Suzuki discloses an apparatus where generating a reproduction instruction that instructs the receiving apparatus to reproduce the program data (column 23, lines 22-25), in case that the program data of each program has been stored in the storing unit;

and transmitting the reproduction instruction for the program at the starting time of the reproduction time period of the program.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the reproduction controls from Suzuki in the broadcasting apparatus disclosed in Eldering. The motivation for doing this would have been to enable the cable network to control which programs were authorized to play on which subscriber's systems.

33. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eldering in view of Suzuki.

Eldering discloses a program recording medium which is readable for a computer in a broadcasting apparatus (column 4, lines 30-33), the broadcasting apparatus transmits a data broadcasting program and a first and a second specific programs which are interposed in the data broadcasting program (figure 7), the computer program embodied on the program recording medium has the computer conduct the steps of: an allotment step for (a) allotting a broadcasting bandwidth for a first time period and a second time period to the first specific program and the second specific program, the first time period and the second time period are included in a total time period between a starting time and a finishing time for broadcasting the data broadcasting program (figure 7), and (b) allotting a part of the broadcasting bandwidth to the first and the second specific programs and the other part of the broadcasting bandwidth to the data broadcasting program for all of time periods other than the first and the second time periods in the total time period (column 7, lines 29-37); an instruction generation step for

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generating a first storage instruction and a second storage instruction that instruct the receiving apparatus to store a program data for the first specific program and a program data for the second specific program in a storing unit in the receiving apparatus (column 6, lines 40-44), respectively, and a transmission step for transmitting (a) a plurality of the first storage instructions before the first time period, and (c) a plurality of the second storage instructions before the second time period, while repeatedly transmitting the program data of each (column 10, lines 37-45).

Eldering does not disclose a program where generating a first reproduction instruction and a second reproduction instruction that instruct a receiving apparatus to reproduce the program data for the first specific program and the program data for the second specific program respectively, in case that the program data for the first specific program and the program data for the second specific program have been stored in the storing unit; and a transmission step for transmitting (b) the first reproduction instruction at the starting time of the first time period, and (d) the second reproduction instruction at the starting time of the second time period.

Suzuki discloses a program where generating a first reproduction instruction and a second reproduction instruction that instruct a receiving apparatus to reproduce the program data for the first specific program and the program data for the second specific program respectively (column 23, lines 22-25), in case that the program data for the first specific program and the program data for the second specific program have been stored in the storing unit; and a transmission step for transmitting (b) the first reproduction instruction at the starting time of the first time period, and (d) the second

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reproduction instruction at the starting time of the second time period of the data broadcasting program (column 23, lines 22-25), the first specific program, and the second specific program in accordance with the result of allotment in the allotment step. (Note: the device decoding the video after the signal is received is being interpreted as equivalent to transmitting a reproduction instruction at the beginning of a reproduction time).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the reproduction controls from Suzuki in the broadcasting apparatus disclosed in Eldering. The motivation for doing this would have been to enable the cable network to control which programs were authorized to play on which subscriber's systems.

34. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eldering in view of Suzuki.

Eldering discloses a program recording medium which is readable for a computer in a broadcasting apparatus (column 4, lines 30-33), the broadcasting apparatus transmits a data broadcasting program and a first and a second specific programs which are interposed in the data broadcasting program (figure 7), the computer program embodied on the program recording medium has the computer conduct the steps of: an allotment step for (a) allotting a broadcasting bandwidth for a first time period and a second time period to the first specific program the first time period and the and the second specific program, second time period are included in a total time period between a starting time and a finishing time for broadcasting the data broadcasting program

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(figure 7), and (b) allotting (1) a broadcasting bandwidth to the data broadcasting data program in the total time period except for the first time period and the second time period (column 7, lines 29-37), (2) a part of the broadcasting bandwidth to the first specific program for a time period preceding to the first time period in the total time period (column 7, lines 29-37), and (3) a part of the broadcasting bandwidth to the second specific program for a time period preceding to the second time period in the total time period (column 7, lines 29-37); an instruction generation step for generating a first storage instruction and a second storage instruction that instruct a receiving apparatus to store a program data for the first specific program and a program data for the second specific program in a storing unit in the receiving apparatus (column 6, lines 40-44), respectively, and a transmission step for transmitting (a) a plurality of the first storage instructions before the first time period, (b) a plurality of the second storage instructions before the second time period, while repeatedly transmitting the program data of each of the data broadcasting program (column 10, lines 37-45), the first specific program, and the second specific program in accordance with the result of allotment in the allotment step.

Eldering does not disclose a program where generating a first reproduction instruction and a second reproduction instruction that instruct the receiving apparatus to reproduce the program data for the first specific program and the program data for the second specific program, respectively, in case that the program data for the first specific program and the program data for the second specific program have been stored in the storing unit; and a transmission step for transmitting (c) the first reproduction instruction

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the starting time of the first time period, and (d) the second reproduction instruction at the starting time of the second time period.

Suzuki discloses a program where generating a first reproduction instruction and a second reproduction instruction that instruct the receiving apparatus to reproduce the program data for the first specific program and the program data for the second specific program (column 23, lines 22-25), respectively, in case that the program data for the first specific program and the program data for the second specific program have been stored in the storing unit; and a transmission step for transmitting (c) the first reproduction instruction the starting time of the first time period, and (d) the second reproduction instruction at the starting time of the second time period (Note: the device decoding the video after the signal is received is being interpreted as equivalent to transmitting a reproduction instruction at the beginning of a reproduction time).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the reproduction controls from Suzuki in the broadcasting apparatus disclosed in Eldering. The motivation for doing this would have been to enable the cable network to control which programs were authorized to play on which subscriber's systems.

35. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eldering in view of Suzuki.

Eldering discloses a program recording medium which is readable for a computer in a broadcasting apparatus (column 4, lines 30-33), the broadcasting apparatus transmits a program block which is composed of a data broadcasting program and a

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program or two or more successive programs which are interposed in the data broadcasting program (figure 7), wherein a reproduction time period between a starting time and a finishing time is specified to each of the data broadcasting program and programs included in the program block (column 7, lines 65-67), the computer program embodied on the program recording medium has the computer conduct the steps of: an allotment step for (a) allotting a broadcasting bandwidth from a first time to the starting time of the reproduction time period of the leading program included in the specific program block to the data broadcasting program and all of the programs included the specific program block (column 7, lines 29-37), and (b) allotting the broadcasting bandwidth for a reproduction time period of each program included in the specific program block to the program and the following programs included in the same program block (figure 7), wherein the first time is a time in the reproduction time period of the data broadcasting program and which satisfies a condition so as not to interpose the other program blocks between the first time and the specific program block (column 10, lines 41-45); an instruction generation step for generating a storage instruction that instructs the receiving apparatus to store a program data of each program included in the specific program block in a storing unit the receiving apparatus (column 6, lines 40-45), a transmission step for transmitting a plurality of the storage instructions for each program included in the specific program block before the starting time of the reproduction time period the program, while repeatedly transmitting the program data of the data broadcasting program and each program included in the specific program block in accordance with the result of allotment in the allotment step (column 10, lines 37-45).

Eldering does not disclose a program where generating a reproduction instruction that instructs the receiving apparatus to reproduce the program data, in case that the program data of each program has been stored in the storing unit; and transmitting the reproduction instruction for the program at the starting time of the reproduction time period of the program.

Suzuki discloses a program where generating a reproduction instruction that instructs the receiving apparatus to reproduce the program data, in case that the program data of each program has been stored in the storing unit; and transmitting the reproduction instruction for the program at the starting time of the reproduction time period of the program (column 23, lines 22-25).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the reproduction controls from Suzuki in the broadcasting apparatus disclosed in Eldering. The motivation for doing this would have been to enable the cable network to control which programs were authorized to play on which subscriber's systems.

36. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eldering in view of Suzuki.

Eldering discloses a program that is readable for a computer in a broadcasting apparatus (column 4, lines 30-33), the broadcasting apparatus transmits a data broadcasting program and a first and a second specific programs which are interposed in the data broadcasting program (figure 7), the program has the computer conduct the steps of: an allotment step for (a) allotting a broadcasting bandwidth for a first time

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period and a second time period to the first specific program and the second specific program, the first time period and the second time period are included in a total time period between a starting time and a finishing time for broadcasting the data broadcasting program (figure 7), and (b) allotting a part of the broadcasting bandwidth to the first and the second specific programs and the other part of the broadcasting bandwidth to the data broadcasting program for all of time periods other than the first and the second time periods in the total time period (column 7, lines 29-37); an instruction generation step generating a first storage instruction and a second storage instruction (column 6, line 40-44) that instruct the receiving apparatus to store a program data for the first specific program and a program data for the second specific program in a storing unit in the receiving apparatus (column 7, lines 29-34), respectively, and a transmission step for transmitting (a) a plurality of the first storage instructions before the first time period, and (c) a plurality of the second storage instructions before the second time period while repeatedly transmitting the program data of each of the data broadcasting program (column 10, line 37-45), the first specific program, and the second specific program in accordance with the result of allotment the allotment step.

Eldering does not disclose a program where generating a first reproduction instruction and a second reproduction instruction that instruct a receiving apparatus to reproduce the program data for the first specific program and the program data for the second specific program, respectively, in case that the program data for the first specific program and the program data for the second specific program have been stored in the

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storing unit; and a transmission step for transmitting (b) the first reproduction instruction at the starting time the first time period, and (d) the second reproduction instruction at the starting time of the second time period.

Suzuki discloses a program where generating a first reproduction instruction and a second reproduction instruction that instruct a receiving apparatus to reproduce the program data for the first specific program and the program data for the second specific program, respectively, in case that the program data for the first specific program and the program data for the second specific program have been stored in the storing unit; and a transmission step for transmitting (b) the first reproduction instruction at the starting time the first time period, and (d) the second reproduction instruction at the starting time of the second time period (column 23, lines 22-25).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the reproduction controls from Suzuki in the broadcasting apparatus disclosed in Eldering. The motivation for doing this would have been to enable the cable network to control which programs were authorized to play on which subscriber's systems.

37. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eldering in view of Suzuki.

Eldering discloses a program that is readable for a computer in a broadcasting apparatus (column 4, lines 30-33), the broadcasting apparatus transmits a data broadcasting program and a first and a second specific programs which are interposed in the data broadcasting program (figure 7), the program has the computer conduct the

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steps of: an allotment step for (a) allotting a broadcasting bandwidth for a first time period and a second time period to the first specific program and the second specific program, the first time period and the second time period are included in a total time period between a starting time and a finishing time for broadcasting the data broadcasting program (figure 7), and (b) allotting (1) a broadcasting bandwidth to the data broadcasting data program in the total time period except for the first time period and the second time period, (2) a part of the broadcasting bandwidth to the first specific program for a time period preceding to the first time period in the total time period, and (3) a part of the broadcasting bandwidth to the second specific program for a time period preceding to the second time period in the total time period (column 7, lines 29-37); an instruction generation step for generating a first storage instruction and a second storage instruction that instruct a receiving apparatus to store a program data for the first specific program and a program data for the second specific program in a storing unit in the receiving apparatus (column 6, lines 40-44), respectively, and a transmission step for transmitting (a) a plurality of the first storage instructions before the first time period, (b) a plurality of the second storage instructions before the second time period; , while repeatedly transmitting the program data of each of the data broadcasting program (column 10, lines 37-45), the first specific program, and the second specific program in accordance with the result of allotment in the allotment step.

Eldering does not disclose a program where generating a first reproduction instruction and a second reproduction instruction that instruct the receiving apparatus to reproduce the program data for the first specific program and the program data for the

second specific program, respectively, case that the program data for the first specific program and the program data the second specific program have been stored in the storing unit; and a transmission step for transmitting (c) the first reproduction instruction at the starting time of the first time period, and (d) the second reproduction instruction at the starting time of the second time period.

Suzuki discloses a program where generating a first reproduction instruction and a second reproduction instruction that instruct the receiving apparatus to reproduce the program data for the first specific program and the program data for the second specific program, respectively, case that the program data for the first specific program and the program data the second specific program have been stored in the storing unit; and a transmission step for transmitting (c) the first reproduction instruction at the starting time of the first time period, and (d) the second reproduction instruction at the starting time of the second time period (column 23, lines 22-25).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the reproduction controls from Suzuki in the broadcasting apparatus disclosed in Eldering. The motivation for doing this would have been to enable the cable network to control which programs were authorized to play on which subscriber's systems.

38. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eldering in view of Suzuki.

Eldering discloses a program that is readable for a computer in a broadcasting apparatus (column 4, lines 30-33), the broadcasting apparatus transmits a program

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block which is composed of a data broadcasting program and a program or two or more successive programs which are interposed in the data broadcasting program (figure 7), wherein a reproduction time period between a starting time and a finishing time is specified to each of the data broadcasting program and programs included in the program block.(column 10, lines 41-45), the program has the computer conduct the steps of: an allotment step for (a) allotting a broadcasting bandwidth from a first time to the starting time of the reproduction time period of the leading program included in the specific program block to the data broadcasting program and all of the programs included in the specific program block (column 10, lines 37-45), and (b) allotting the broadcasting bandwidth for a reproduction time period of each program included in the specific program block to the program and the following programs included in the same program block (figure 7), wherein the first time is a time in the reproduction time period of the data broadcasting program and which satisfies a condition so as not to interpose the other program blocks between the first time and the specific program block (column 7, lines 65-67); an instruction generation step for generating a storage instruction that instructs the receiving apparatus to store a program data of each program included in the specific program block in a storing unit in the receiving apparatus (column 6, lines 40-44), a transmission step for transmitting a plurality of the storage instructions for each program included in the specific program block before the starting time of the reproduction time period of the program (column 10, lines 37-45), while repeatedly transmitting the program data of the data broadcasting program and each program

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included in the specific program block in accordance with the result of allotment in the allotment step.

Eldering does not disclose a program where generating a reproduction instruction that instructs the receiving apparatus to reproduce the program data, in case that the program data of each program has been stored in the storing unit; and transmitting the reproduction instruction for the program at the starting time of the reproduction time period of the program.

Suzuki discloses a program where generating a reproduction instruction that instructs the receiving apparatus to reproduce the program data, in case that the program data of each program has been stored in the storing unit; and transmitting the reproduction instruction for the program at the starting time of the reproduction time period of the program (column 23, lines 22-25).

Allowable Subject Matter

Claims 7, 12, 13, and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Eldering et al., U.S. Patent Number 6,704,930, Advertisement Insertion Techniques for Digital Video Streams.

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Eldering et al., U.S. Patent Number 6,820,277, Advertisement Insertion
Techniques for Digital Video Streams.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin E. Shepard whose telephone number is (571) 272-5967. The examiner can normally be reached on 7:30-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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JS


CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600